

Titan^{HR8}



Productivity:

HR8 continues to push the envelope in the realm of optical inspection. This high production HDI inspection system combines the unmatched efficiency and throughput with the highest inspection integrity and places HR8 at the forefront of optical inspection solutions available today.

Inspection:

HR8 incorporates our successful and coveted inspection principle of pixel-to-pixel CAD reference comparison. This absolute inspection technique has zero inspection limitations regardless of board design and image complexity. Improved inspection efficiency from post inspection intelligence, or EMV™ calculates the validity of every pixel discrepancy. Then, only reports defects according customer defined quality control rules.

Intelligence:

HR8 uses our proven high powered opto-mechanical zoom lenses giving the best resolution flexibility in a dust and maintenance free package. The New HR8 CCD cameras with double the resolution and three times the sensitivity places the HR8 at the pinnacle of defect detection. HR8 maintains a unique ability to have inspection flexibility across a broad spectrum of applications allowing TITAN to be an essential asset in High-production Inner/Outer-layer down to 1.5mil feature sizes as well as its use as a Quality control inspection system for Dry-film and Photo-tool applications.

SVI™ Technology provides multiple verification possibilities including simultaneous and verify and inspect with real-time live video and digital error data overlay, and fully automated ink marking for offline verification and repair.

VRAC™ “Video to Raster Converter” generates a geometrically corrected image allowing Pinless registration and increased accuracy in fine line inspection.

Ergonomic Operation

HR8 uses a Windows XP Graphical User Interface (GUI) providing the operator with familiar local language environment. System control through the “hotkey” pad and wide-screen monitor promotes a common sense approach to improved inspection performance, while maintaining operator alertness and ultimately improving yields.

- **New High Resolution Cameras**
- **SVI™ Technology Generating the Highest Throughput and efficiency**
- **Pixel-to-Pixel – An Absolute Inspection.**
- **Highest Quality in Build Materials.**
- **Ergonomic Approach to High Production AOI.**
- **EMV™ Report only what you want.**
- **VRAC™ New Pin-less Registration**
- **New DHD™ Hole displacement measurement.**

Media sizes

Max. Panel Dimensions HR8	21" x 30" (HR8x 24"x30")	533 x 762 mm
Max. Panel Thickness	0.0" ... 0.300"	0.0 ... 7.0 mm
Max. Inspection area	21" x 30" (HR8x 24"x30")	533 x 762 mm

Inspection media

Standard	Conventional bare copper incl: Shiny, matt, oxide coated, reverse-treat, double-treat, gold plated features; silver halide film	
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Inspection Principles

Inspection Methodology	<ul style="list-style-type: none"> Pixel-to-Pixel Absolute inspection. EMV™ Post Inspection Intelligence. DHD™ Drill Hole Displacement Measurement.
Verification.	<ul style="list-style-type: none"> SVI™ Simultaneous Verify and Inspect. SVI™ with Automated Ink Stamp. DV8 or Athena Offline Verification.
Registration.	Three Point Pinless registration - Vacuum Table Auto Registration – Vacuum table Pinned Panel – Vacuum table
DATA Requirements.	UCAM SmartAOI Supplied Standard: <ul style="list-style-type: none"> Automated CAM Preparation. All Common input formats. Golden-Board with On-line Image Edit.
Operator Interface (GUI).	Windows XP – Local languages

Utilities

Dimensions (W x H x D).	62" x 66" x 72"	1,575mm x 1,676mm x 1829mm
Power Requirements	110VAC 14Amps / 220VAC 7 Amps	
Weight.	5,000 lbs	2,272 kg (Inc. Crate)
AIR.	90 PSI @ 1 CFM	

Options

Outer Layer	Drill Hole Displacement (DHD) measurement
Multisurface Inspection	Photo Resist, Diazo Film
Pinless Alignment	Pin-less registration – Panel Edge Alignment